



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/752,431	01/06/2004	Robert Baer	0132.67604	3776

7590 11/30/2004

Patrick G. Burns  
GREER, BURNS & CRAIN, LTD.  
Suite 2500  
300 South Wacker Drive  
Chicago, IL 60606

EXAMINER
----------

REESE, DAVID C

ART UNIT	PAPER NUMBER
----------	--------------

3677

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/752,431

Applicant(s)

BAER ET AL.

Examiner

David C. Reese

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Status of Claims*

- [1] Claims 1-8 are pending.

### *Claim Rejections - 35 USC § 103*

- [2] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- [3] Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeHaitre US-5,516,248 in view of Godfrey US-2,650,032.

DeHaitre teaches of a low torque wood screw.

However, DeHaitre fails to disclose expressly a screw that possesses a plurality of spaced rings.

Godfrey teaches of a track spike that possesses a plurality of rings on its upper portion, below the head of the spike.

---

At the time of invention, it would have been obvious to one of ordinary skill in the art to modify the screw as taught by DeHaitre, to incorporate a plurality of rings as taught by Godfrey, in order to create a more profound bond between the screw and the substrate by which it is driven into.

Now as for Claim 1, DeHaitre discloses a low torque wood screw comprising:

a shaft (10 and 16 in Fig. 1 of DeHaitre),  
a head at a first end of the shaft (20 in Fig. 1 of DeHaitre), and  
a point at the other end of the shaft (32 in Fig. 4 of DeHaitre),  
a first portion of the shaft adjacent the point being threaded (16 in Fig. 4 of DeHaitre),  
and extending about one-half the total length of the shaft (from line 6, part 4 of DeHaitre, stating, "...the shank 16 occupies approximately one-half of the total length of the screw 10."), and  
a second portion of the shaft adjacent the head not being threaded (12 in Fig. 1 of DeHaitre), said second portion having a plurality of spaced rings (12 in Fig. 1 of DeHaitre in view of 28 in Fig. 1 of Godfrey).

As for Claim 2, Re: Claim 1, DeHaitre shows a low torque wood screw comprising a knurled portion between said first and second portions (18 in Fig. 1 of DeHaitre).

As for Claim 3, Re: Claim 1, DeHaitre shows a low torque wood screw wherein said first portion has asymmetrical threads (the threads near the tip of the screw, 32 in Fig. 1 of DeHaitre, compared with the threads near the end of the first portion of 16 in Fig. 1 of DeHaitre).

As for Claim 4, Re: Claim 1, DeHaitre, in view of substituting the rings, 28 in Fig. 1, from Godfrey to the non-threaded section portion, 12 in Fig. 1 of DeHaitre, shows a screw having three radial lobes (28 in Fig. 1 of Godfrey).

---

As for Claim 5, Re: Claim 1, DeHaitre, in view of substituting the rings, 28 in Fig. 1, from Godfrey to the non-threaded section portion, 12 in Fig. 1 of DeHaitre, shows a screw comprising three said rings, wherein said rings are unequally spaced with respect to each other (As stated from line 43, part 4 of Godfrey, stating, "It will be understood that the shape of the rings 26 and their dimensions with respect to the shank 24 and to the underside of the head may vary...and that the exact shapes of the deformable rings may vary somewhat from the form shown, depending upon the exact characteristics desired and also upon manufacturing considerations." ).

As for Claim 6, Re: Claim 1, DeHaitre, in view of substituting the rings, 28 in Fig. 1, from Godfrey to the non-threaded section portion, 12 in Fig. 1 of DeHaitre, shows a screw wherein said shaft has a total length TL from an inside surface of said head to said point, the fastener comprising three of said rings, a first of said rings being located about .23 TL from said inside surface, a second of said rings being located about .16 TL from said inside surface, and a third of said rings being located about .07 TL from said inside surface (As stated from line 43, part 4 of Godfrey, stating, "It will be understood that the shape of the rings 26 and their dimensions with respect to the shank 24 and to the underside of the head may vary...and that the exact shapes of the deformable rings may vary somewhat from the form shown, depending upon the exact characteristics desired and also upon manufacturing considerations." ).

As for Claim 7, Re: Claim 1, DeHaitre, in view of substituting the rings, 28 in Fig. 1, from Godfrey to the non-threaded section portion, 12 in Fig. 1 of DeHaitre, shows a screw comprising three said rings, wherein said rings are equally spaced with respect to each other (26 in Fig. 1 of Godfrey).

---

Lastly, as for Claim 8, Re: Claim 1, DeHaitre, in view of substituting the rings, 28 in Fig. 1, from Godfrey to the non-threaded section portion, 12 in Fig. 1 of DeHaitre, shows a screw wherein said shaft has a total length TL from an inside surface of said head to said point, the fastener comprising three of said rings, a first of said rings being located about .13 TL from said inside surface, a second of said rings being located about .08 TL from said inside surface, and a third of said rings being located about .04 TL from said inside surface (As stated from line 43, part 4 of Godfrey, stating, "It will be understood that the shape of the rings 26 and their dimensions with respect to the shank 24 and to the underside of the head may vary...and that the exact shapes of the deformable rings may vary somewhat from the form shown, depending upon the exact characteristics desired and also upon manufacturing considerations.")

### *Conclusion*

[4] The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows: With regard to the rings disclosed, please note the following as extremely important to the applicant's invention: the ridges found in 14 of Fig. 1 of Rabe, U.S. Patent 3,987,698; the annular protrusions, 22 and 24 from Fig. 1 of Knohl, U.S. Patent 4,462,730; and the annular projections 17 from Fig. 1 of Clarke, U.S. Patent 3,325,135. With regard to the other aspects of applicant's invention, please note the following as extremely important: Commins, U.S. Patent 6,109,850; and Roberts, U.S. Patent 5,295,774. Other pertinent art is as follows: Sternitzky, U.S. Patent 5,779,416; Reinwall, U.S. Patent 4,621,963; Schabert et al., U.S. Patent 4,951,974; Gotoh, U.S. Patent 5,015,134; Dieter, U.S. Patent

---

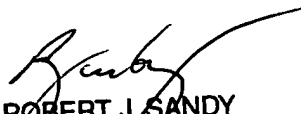
Art Unit: 3677

1,968,516; Kawashita, U.S. Patent 4,874,278; Crigger, U.S. Patent 4,797,022, Hartmann et al.,  
U.S. Patent 6,264,414 B1; Ball, U.S. Patent 3,106,791.

[5] Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Reese whose telephone number is 703-305-4805. The examiner can normally be reached on 7:30 am - 5:00 pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (703) 306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
ROBERT J. SANDY  
PRIMARY EXAMINER

Sincerely,  
David Reese  
Assistant Examiner  
Art Unit 3677